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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,029	12/03/2001	Tetsujiro Kondo	450108-3249.3	1663
20999	7590	02/26/2004	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			WALLERSON, MARK E	
			ART UNIT	PAPER NUMBER
			2626	

DATE MAILED: 02/26/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/005,029

Applicant(s)

KONDO ET AL.

Examiner

Mark E. Wallerson

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 52-113 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 52-113 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **Part III DETAILED ACTION**

#### *Notice to Applicant(s)*

1. This action is responsive to the following communications: amendment filed on 12/23/03.
2. This application has been reconsidered. Claims 52-113 are pending.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 52-113 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no disclosure in the original specification of means for determining a **number of** quantization characteristics of low hierarchy data being a resolution higher than that of upper hierarchy data being a low resolution, based on **only** said upper hierarchy data. (Emphasis added).

The Examiner made this rejection in the Office Action mailed on 9/17/2003. applicant provided alleged support for this subject matter in Figure 11 and page 29, lines 13-19. These areas **do not** disclose "determining.....quantization characteristics pertaining to a quantization

value of low hierarchy data.....**based on only said upper hierarchy data**". Again, if Applicant believes this rejection to be in error, Applicant is requested to provide **SPECIFIC** support for this subject matter in the original specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 52-113 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

"[A] number of quantization characteristics" is unclear and indefinite.

### *Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 52, 53, 54, 55, 59, 60, 62, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 80, 82, 84, 86, 87, 88, 89, 90, 92, 93, 94, 95, 96, 99, 100, 102, 104, 106, 106, 107, 108, 109, 110, 111, 112, and 113 are rejected under 35 U.S.C. 102(b) as being anticipated by Ericsson (U. S. 4,849,810).

With respect to claims 52, 53, 59, 72, 73, 79, 92, 93, and 99, Ericsson discloses a hierarchial encoding method (column 2, lines 67-68) for encoding input picture data (column 2, line 67 to column 3, line 4) to generate hierarchial data of different resolutions (column 12, lines 29-37) comprising determining means for determining the quantization characteristics of a lower hierarchy data having a resolution higher than that of an upper hierarchy data being a lower resolution (column 12, lines 22-37, and column 12, line 44 to column 13, line 10) based on the activity of only the upper hierarchy data (column 4, lines 10-19), in which the quantization characteristics of the low hierarchy data are different from the quantization characteristics of the upper hierarchy data (the resolution of the upper hierarchy data is different from the resolution of the lower hierarchy data) (column 12, lines 22-37), and means for quantizing each of the hierarchy data in accordance with the determined quantization characteristics of each hierarchy (column 12, line 59 to column 13, line 38).

With respect to claims 54, 74, and 94, Ericsson discloses a determination means for determining the quantization step width of the lower hierarchy data for each predetermined block of the hierarchy data based on the step width determined by the upper hierarchy data (column 11, lines 19-33).

With regard to claims 55, 62, 64, 75, 82, 84, 95, 102, and 104, Ericsson discloses determination means for determining the quantized value of hierarchy data in a predetermined block in accordance with the step width determined by the upper hierarchy data, and determines the step width of the lower hierarchy data (column 10, lines 40-57).

With regard to claims 60, 80, and 100, Ericsson determines the quantization bit number of a lower hierarchy data based on the step width determined by the upper hierarchy data (column 11, lines 56-68).

With respect to claims 66, 86, and 106, Ericsson discloses determining for each block the quantization characteristics of the low hierarchy data based on predictions of the upper hierarchy data and determining a step size of the lower hierarchy data based on predictions of the upper hierarchy data (column 12, line 59 to column 14, line 32).

With respect to claims 67, 68, 87, 88, 107, and 108, Ericsson claims determination means for determining the quantized value of hierarchy data in a predetermined block in accordance with the step width determined by the upper hierarchy data and multiplies the step width of the upper hierarchy data by a gain value (column 3, lines 41-52).

With regard to claims 69, 70, 71, 89, 90, 91, 109, and 110, Ericsson discloses Ericsson discloses that hierarchy data except the uppermost hierarchy data is the inter-hierarchy difference data (column 12, lines 59-68 to column 13, lines 1-5).

With respect to claims 111, 112, and 113, Ericsson discloses detecting the quantization result of the upper hierarchy data as activity of the upper hierarchy data (column 12, line 55 to column 13, line 5).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 56, 57, 58, 61, 63, 65, 76, 77, 78, 81, 83, 85, 96, 97, 98, 101, 103 and 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ericsson in view of Asamura et. al. (Asamura) (U. S. 5,442,399).

Ericsson discloses a hierarchial encoding method for encoding input picture data to generate hierarchial data of different resolutions comprising determining means for determining the quantization characteristics of a lower hierarchy data having a resolution higher than that of an upper hierarchy data. Ericsson differs from claims 56, 57, 58, 61, 63, 65, 76, 77, 78, 81, 83, 85, 96, 97, 98, 101, 103, and 105 in that he does not disclose determination means for determining the quantization step width of the lower hierarchy data by multiplying the quantization step width of the upper hierarchy data by a linear or non-linear weight. Asamura discloses determination means for determining the quantization step width of the lower hierarchy data by multiplying the quantization step width of the upper hierarchy data by a linear or non-linear weight (column 22, lines 9-13, column 24, lines 32-61, and column 29, lines 17-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the determination means as taught by Asamura in the apparatus of Ericsson in order to determine the quantization step width of the lower hierarchy data.

*Response to Arguments*

11. Applicant's arguments filed 12/23/2003 have been fully considered but they are not persuasive. Applicant submits that Ericsson does not disclose "means for determining a number of quantization characteristics pertaining to a quantization value of low hierarchy data being a resolution higher than that of upper hierarchy data being a low resolution based only [on] said upper hierarchy". The Examiner disagrees.

In addition to the Examiner's comments in paragraphs 4-6 above, Ericsson discloses means for determining a number of quantization characteristics (quantized difference images) (column 14, lines 18-47) pertaining to a quantization value (step size) of low hierarchy data being a resolution higher than that of upper hierarchy data being a low resolution based only [on] said upper hierarchy (column 14, line 18 to column 15, line 47) and column 12, lines 22-58).

*Conclusion*

12. All claims are rejected.

33. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

**A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT**



Serial No.: 10/005,029  
Art Unit: 2626

7

MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED  
STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE  
ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE  
PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING  
DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD  
FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS  
FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Mark Wallerson whose telephone number is (703) 305-8581.

Any inquiry of a general nature or relating to the status of this application should be  
directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, DC 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry)

(for informal or draft communications, such as proposed amendments to be discussed at an interview;  
please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two  
2121 Crystal Drive  
Arlington, VA.  
Sixth Floor (Receptionist)

MARK WALLERSON  
PRIMARY EXAMINER

Mark Wallerson